EVERSOURCE

Project Approval Form

Project Title: [redacted]	**Project Number: CD02480**
Date Prepared: 10/23/2025	**Company:** Eversource CT
Organization: Distribution Engineering	**Project Category:** RELIABILITY IMPROVE SPEC PROJ
Project Initiator: [redacted]	**Project Type:** Specific
Initiating Organization: Distribution	**Capital Investment part of original Op Plan:** Yes
Project Manager: [redacted]	**Emergency Related Request?** No
Project Sponsor: [redacted]	**Facility Type** (check all that apply)**:** ☐ PTF ☐ non-PTF ☒ Distribution ☐ N/A (General Plant)
Required in service date: 12/31/25	**NWS Excludable:** ☐ Yes ☒ No
Total Capital Request: $753K	**Authorization Type:** Full Funding

1. Executive Summary

CD02480 is being presented for Full Funding approval for $753K. Partial Funding approval was given on 9/12/24 for $554.9K. The Full Funding estimate is 136% over the Partial Funding approved amount, or $198.1K. Although the direct charges are $66K lower, the indirect charges came in $264K higher. There is no scope change.

This project has been established to [redacted]

- Requesting Partial Funding Authorization: $554.9K
- Project Location:
  - Division: Eastern
  - District: Madison AWC
  - Town: Madison

[redacted]

There is history at Hendrix with respect to UV damaged and prematurely aged cable. Most of this cable was made with the new grey compound from the 1969-1973 era. Some of the first UV inhibitors used were later found to be "fugitive". This means that they escaped from the compound blend years after curing, migrated to the surface, and were washed off by

rain. The result was that the cable prematurely aged, lost its tensile strength, and cracked. The cracking took two different forms. One type of cracking was called "window paning" because the cracks looked like multiple squares across the surface. The other type of crack was circumferential ring cracking. When the PE loses its tensile strength and is subsequently subjected to heat/cold cycles, at some point when the cold season turns to warm, and the cold-contracted PE tries to expand, micro-cracks open perpendicular to the direction of pull. It is only a matter of time before these cracks continue around the entire circumference.

[redacted].

2. Project Cost Summary

Note: Dollar values are in thousands.

Capital Costs	Year 2025	Year 2026	Year 2027	Total
Internal Labor and Construction Equipment	102.4	0.0	0.0	102.4
Outside Services	50.9	0.0	0.0	50.9
Materials	49.6	0.0	0.0	49.6
Removals	55.7	0.0	0.0	55.7
Other	0.0	0.0	0.0	0.0
Risk and Contingency	52.5	0.0	0.0	52.5
Subtotal	**311.1**	**0.0**	**0.0**	**311.1**

Indirect Capital Costs	2025	2026	2027	Total
Indirects/Overheads (including benefits)	442.0	0.0	0.0	442.0
Capitalized interest or AFUDC, if any	0.0	0.0	0.0	0.0
Subtotal	**442.0**	**0.0**	**0.0**	**442.0**

Total Capital Costs (Gross)	**753.0**	**0.0**	**0.0**	**753.0**

Less Total Customer Contribution	**0.0**	**0.0**	**0.0**	**0.0**

Project Costs (Net)	**753.0**	**0.0**	**0.0**	**753.0**

Explain unique payment provisions, if applicable:

3. Technical Justification

Background, Project Need/Justification, and Project Scope

a. Background

[redacted]

[redacted]

b. Project Need

[redacted]

[redacted]. Previously, tree-related outages were a significant concern, prompting consideration of using spacer cable. However, recent developments have altered the landscape:

1. Clear-cutting: The area most prone to tree-related outages has been clear-cut, eliminating the primary source of disruptions.
2. Improved clearance: Other sections of the zone now have substantially better tree clearance, with many areas achieving near ground-to-sky clearance.
3. Reduced risk: In the Horse Pond area, at least half of the trees are now outside our standard tree trimming zone, further reducing potential interference with power lines.

These changes have significantly reduced the need for spacer cable. The 477 TW short arm construction is now a more reliable and suitable solution.

c. Project Scope

- [redacted]
- [redacted]
- [redacted]
- [redacted]
- [redacted]

4. Alternatives Considered

Project Option Comparison

	Option			
[redacted]				
Authorization Type	Full	Partial	Partial	
Capital Cost	$753K	$539.6K	$707.6K	
Expense Cost	$42.8K	$32.5K	$42.6K	
Total Cost	$795.8K	$572.1K	$750.2K	
Total Cost / CM Saved	$2.71/CMS	$2.05/CMS	$2.69/CMS	
Preferred option	X			

Option Summary

Option 1: Preferred – preferred because it [redacted]

Option 2: Not preferred – not chosen because it does not address [redacted]

Option 3: Not preferred – not chosen because it does not [redacted]

Option 4: Not preferred – [redacted] The cost of an NWS was calculated at $2M/MWh based on the lowest of three contractor bids received in Connecticut. The cost of $18.4M is prohibitive.

5. Project Schedule

Add any additional milestones that are pertinent to the project

Milestone/Phase Name	Estimated Date
Partial Approval	September 12, 2024
100% Detailed Engineering Completion	September 30, 2025
Fully Funded	October 23, 2025
Construction Start	January 2, 2026
In Service Date	June 30, 2026

6. Regulatory Decisions

7. Codes and Standards

8. Risk and Contingencies

Contingencies:

Risk Mitigation:

Risk Event	Risk Horizon	Likelihood of Occurrence	Risk Mitigation
Actual cost higher than estimated due to scope changes.	2026	Low	Included contingency costs in the funding request. Perform detailed Field Analysis and walk down in project development to avoid potential issues.
Customer Permission / Siting Council / Municipal approvals	2026	Low	Design to minimize customer impact. Project Preplanning and customer/community outreach.
Internal construction resources not available to perform the work.	2026	Low	Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost.
Internal engineering resources not available to perform the work.	2025	Low	Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost.
Materials Shortage or long lead times	2026	Low	Pre-order long lead time material; minimize the use of non-standard and non-stocked material.

Storm delays	2026	Low	If storm activity delays work, we may be forced to use external resources.
System abnormal configuration	2026	Low	Schedule work to minimize system abnormal time. Install temporary bypasses/equipment if system will be abnormal for extended periods.
Technological risks involving integration of new technology	2026	Low	Before use of new technology ensure support of standards and manufacturer. Schedule project to accommodate for extra time or ensure new technology is not on the critical path.
Wetlands / Environmentally sensitive area	2026	Low	Use of mats and specialty equipment, only work during certain times of the year.

9. References

References
1.
2.
3.
4.

10. Attachments (One Line Diagrams, Images, etc.)

Attachment	Included in Submittal?
A. Cost Estimate	*YES*
B. Geographic Map	*YES*
C. One-Lines	*YES*
D. Load Sheet	*YES*
E. Outage Map	*YES*

Attachment A: Cost Estimate

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD02480

[redacted]

Work Classification

Category: Line
Type: REL1
Type Desc: RELIABILITY IMPROVE SPEC PROJ
Work Type:

Ownership / Management

AWC: Madison
Statewide: No
Owner: [redacted]
Manager:

Project Information

Status: Draft
SPS #:
AIS Score:
Associated Projects:
Assignment ID:
Patrol Find ID:

Budget Summary - Preferred Option

Reconductor Horse Pond, Railroad Ave, Remove OOS Conductor on New

2026

ID	Title	Status	Rev #	Contingency	Expenditure Amount	Net Estimate
1	[redacted]	Draft	0	28%	$141,861	$141,861
2		Draft	0	28%	$3,462	$3,462
3		Prelim	0	28%	$441,159	$441,159
				2026 Total:	$586,483	$586,483
				Total Project:	$586,483	$586,483

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD02480 [redacted]

Design Alternative CD02480-01

Estimate

Preliminary Estimate Summary

Revision Number:	0
Contingency:	28.00%
SubTotal:	$110,829
Contingency Amount:	$31,032
Estimate:	$141,861
Reimbursement:	$0
Net Amount:	**$141,861**
Description:	[redacted]

Item Description	CU	$ / Per	Qty	Amount
SWITCHING OH/DB/UG - SWITCHING NonNetwork - Average	23-ALL17	[redacted]		$9,124.96
POLE OH - POLE - 3ph (Eversource custodian)	23-OH14			$18,236.40
SECTIONALIZE OH - Cutouts or Arresters - 1ph	23-OH19			$1,782.56
XF OH - OH XF - 1ph	23-OH45			$5,484.96
TRAFFIC OH/DB/UG - Traffic Control - Police Officer 15% of Subtotal, not including tree trimming	23-ALL18			$12,760.00
OH WIRE OH-Reconductor w/175 Mil Tree Wire-3ph- 556 kcmil [redacted] wire is 477 TW	23-OH27			$50,440.00
TREE OH - Tree Trimming Quantity modified to offset $1.30 COST	23-OH61			$13,000.00

Associated / Impacted Devices

Status	Type / SysID	Street / Cross St	Structure / Town	Circuit	Map	Cust	Notes

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD02480 [redacted]

Design Alternative CD02480-02

Estimate

	Preliminary Estimate Summary
Revision Number:	0
Contingency:	28.00%
SubTotal:	$2,705
Contingency Amount:	$757
Estimate:	$3,462
Reimbursement:	$0
Net Amount:	**$3,462**
Description:	Remove OOS Wire on New Rd.

Item Description	CU	$ / Per	Qty	Amount
TRAFFIC OH/DB/UG - Traffic Control - Police Officer 15% of subtotal, not including Tree Trimming	23-ALL18	[redacted]		$1.00
OH WIRE OH - Remove circuit wire (3 phase) New Rd - Remove OOS primary conductor	23-OH37A			$2,704.00

Associated / Impacted Devices

Status	Type / SysID	Street / Cross St	Structure / Town	Circuit	Map	Cust	Notes

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD02480 [redacted]

Design Alternative CD02480-03

Estimate

Preliminary Estimate Summary

Revision Number:	0
Contingency:	28.00%
SubTotal:	$344,656
Contingency Amount:	$96,504
Estimate:	$441,159
Reimbursement:	$0
Net Amount:	**$441,159**
Description	[redacted]

Item Description	CU	$ / Per	Qty	Amount
SWITCHING OH/DB/UG - SWITCHING NonNetwork - Average	23-ALL17	[redacted]		$9,124.96
POLE OH - POLE - 3ph (Eversource custodian)	23-OH14			$48,630.40
SECTIONALIZE OH - Cutouts or Arresters - 1ph	23-OH19			$7,130.24
TRAFFIC OH/DB/UG - Traffic Control - Police Officer 15% of subtotal, not including Tree Trimming	23-ALL18			$40,129.00
TREE OH - Tree Trimming Quantity modified to offset $1.30 COST	23-OH61			$36,999.30
XF OH - OH XF - 1ph Railroad Ave - 4 Xmfr	23-OH45			$10,969.92
OH WIRE OH-Reconductor w/175 Mil Tree Wire-3ph- 556 kcmil [redacted] wire is 477 TW	23-OH27			$191,672.00

Attachment B: Geographic Map



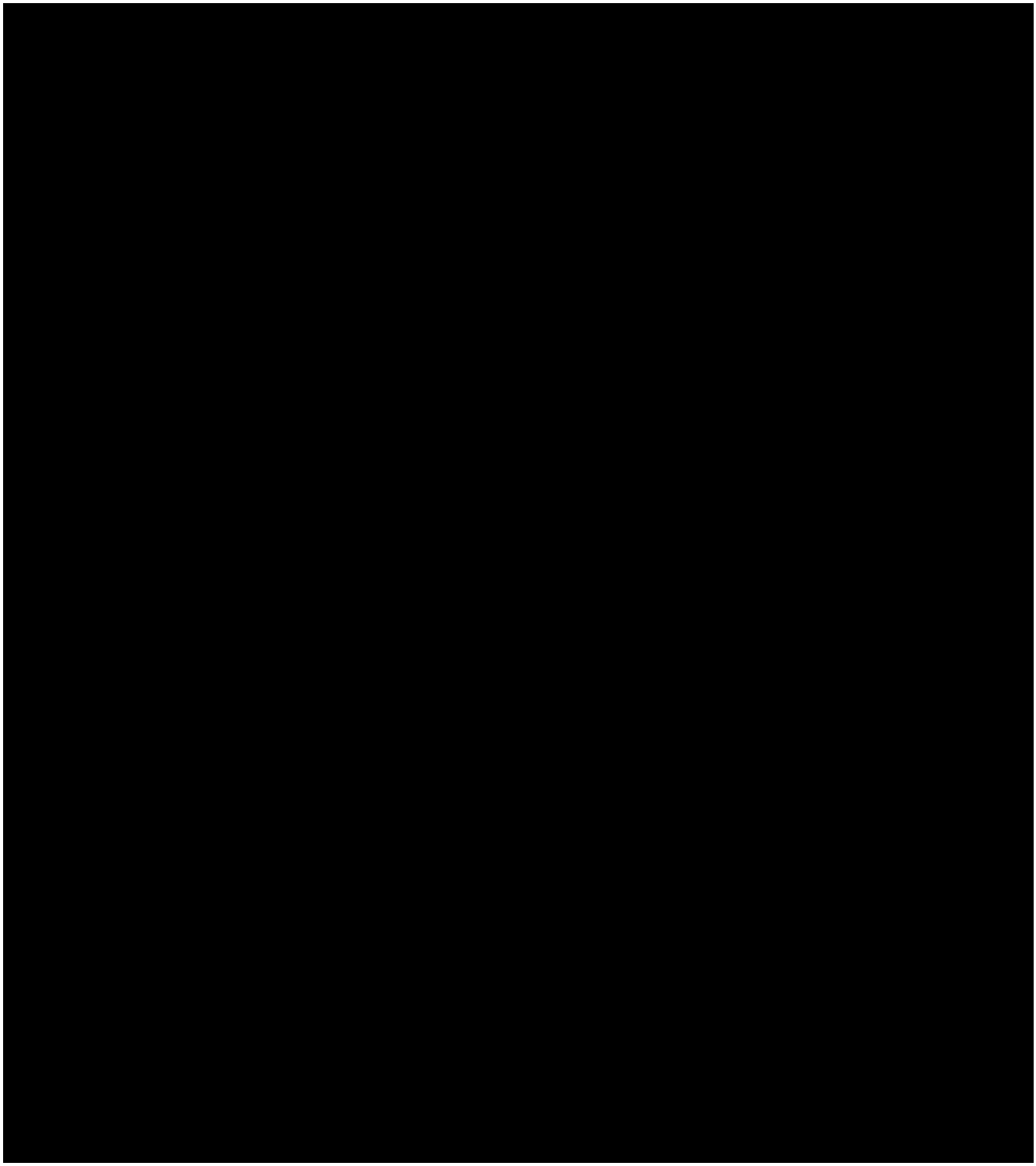
Attachment C: 30R15 One-Line - Existing



30R15 One-Line - Proposed



Attachment D: Load Sheets



Attachment E: Outage Map



EVERSOURCE

Project Approval Form

Project Title: [redacted]	**roject Number: CD02480**
Date Prepared: 09/12/2024	**Company:** Eversource CT
Organization: Distribution Engineering	**Project Category:** RELIABILITY IMPROVE SPEC PROJ
Project Initiator [redacted]	**Project Type:** Specific
Initiating Organization: Distribution	**Capital Investment part of original Op Plan:** Yes
Project Manager: [redacted]	**Emergency Related Request?** No
Project Sponsor: [redacted]	**Facility Type** (check all that apply)**:** ☐ PTF ☐ non-PTF ☒ Distribution ☐ N/A (General Plant)
Required in service date: 12/31/2026	
Total Capital Request: $554.9K	**Authorization Type:** Partial Funding

1. Executive Summary

[redacted]

- Requesting Partial Funding Authorization: $554.9K
- Project Location:
  - Division: Eastern
  - District: Madison AWC
  - Town: Madison

[redacted]

1

Refer to Distribution Capital Project Approval Process
JA-AM-2001-B, Rev.1

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Project Approval Form

[redacted]

Project Approval Form

2. Project Cost Summary

Note: Dollar values are in thousands.

Capital Costs	Year 2026	Year 2027	Year 2028+	Total
Direct Capital Costs				
Internal Labor and Construction Equipment	29.0			29.0
Outside Services	196.8			196.8
Materials	78.9			78.9
Removals	69.4			69.4
Risk and Contingency	0.0			0.0
Other	2.7			2.7
Subtotal – Direct Costs	376.8			376.8
Indirect Capital Costs				
Indirect/Overheads (including benefits)	167.1			167.1
Capitalized interest or AFUDC, if any	11.1			11.1
Subtotal – Indirect Costs	178.1			178.1
Total Gross Capital Costs	**554.9**			**554.9**
Customer Contribution				
Total Net Capital Project Costs	**554.9**			**554.9**

Explain unique payment provisions, if applicable:

3

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Project Approval Form

3. Technical Justification

Background, Project Need/Justification, and Project Scope

a. Background

[redacted]

b. Project Need

[redacted]reviously, tree-related outages were a significant concern, prompting consideration of using spacer cable. However, recent developments have altered the landscape:

1. Clear-cutting: The area most prone to tree-related outages has been clear-cut, eliminating the primary source of disruptions.
2. Improved clearance: Other sections of the zone now have substantially better tree clearance, with many areas achieving near ground-to-sky clearance.
3. Reduced risk: In the Horse Pond area, at least half of the trees are now outside our standard tree trimming zone, further reducing potential interference with power lines.

These changes have significantly reduced the need for spacer cable. The 477 TW short arm construction is now a more reliable and suitable solution.

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c. Project Scope



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Project Approval Form

4. Alternatives Considered

Project Option Comparison

[redacted]

Authorization Type	Partial	Partial	Partial
Capital Cost	$523.4K	$396.8K	$520.3K
Expense Cost	$31.5K	$23.8K	$31.3K
Total Cost	$554.9K	$420.7K	$551.7K
Total Cost / CM Saved	$1.99/CM	$1.51/CM	$1.98/CM
Preferred option	X		

Option 1 is preferred because it replaces [redacted]

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Project Approval Form

Option 2 was not chosen because it does not address [redacted]

Option 3 was not chosen because it does [redacted]

5. Project Schedule

Add any additional milestones that are pertinent to the project

Milestone/Phase Name	Estimated Date
Partial Approval	September 12, 2024
100% Detailed Engineering Completion	March 2025
Fully Funded	May 2025
Construction Start	January 2026
In Service Date	June 20, 2026

6. Regulatory Decisions

- N/A

7. Codes and Standards

- N/A

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Project Approval Form

8. Risk and Contingencies

Contingencies:

Risk Mitigation:

Risk Event	Risk Horizon	Likelihood of Occurrence	Risk Mitigation
Actual cost higher than estimated due to scope changes.	2026	Low	Included contingency costs in the funding request. Perform detailed Field Analysis and walk down in project development to avoid potential issues.
Customer Permission / Siting Council / Municipal approvals	2026	Low	Design to minimize customer impact. Project Preplanning and customer/community outreach.
Internal construction resources not available to perform the work.	2026	Low	Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost.
Internal engineering resources not available to perform the work.	2025	Low	Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost.
Materials Shortage or long lead times	2026	Low	Pre-order long lead time material; minimize the use of non-standard and non-stocked material.
Storm delays	2026	Low	If storm activity delays work, we may be forced to use external resources.
System abnormal configuration	2026	Low	Schedule work to minimize system abnormal time. Install temporary bypasses/equipment if system will be abnormal for extended periods.

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Technological risks involving integration of new technology	2026	Low	Before use of new technology ensure support of standards and manufacturer. Schedule project to accommodate for extra time or ensure new technology is not on the critical path.
Wetlands / Environmentally sensitive area	2026	Low	Use of mats and specialty equipment, only work during certain times of the year.

9. References

References
1.
2.
3.
4.
5.

10. Attachments (One Line Diagrams, Images, etc.)

Attachment	Included in Submittal?
A. Cost Estimate	*YES*
B. Geographic Map	*YES*
C. One-Lines	*YES*
D. Load Sheets	*YES*
E. Outage Map	*YES*

EVERSOURCE
Project Approval Form

Attachment A: Cost Estimate

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD02480
[redacted]

Work Classification

Category: Line
Type: REL1
Type Desc: RELIABILITY IMPROVE SPEC PROJ
Work Type:

Ownership / Management

AWC: Madison
Statewide: No
Owner
Manager [redacted]

Project Information

Status: Draft
SPS #:
AIS Score:
Associated Projects:
Assignment ID:
Patrol Find ID:

Budget Summary - Preferred Option

Reconductor Horse Pond, Railroad Ave, Remove OOS Conductor on New

2026

ID	Title	Status	Rev #	Contingency	Expenditure Amount	Net Estimate
1	[redacted]	Draft	0	28%	$141,861	$141,861
2		Draft	0	28%	$3,462	$3,462
3		Prelim	0	28%	$441,159	$441,159
				2026 Total:	$586,483	$586,483
				Total Project:	$586,483	$586,483

Asset & Investment Management System 8/29/2024 Page 1 of 10

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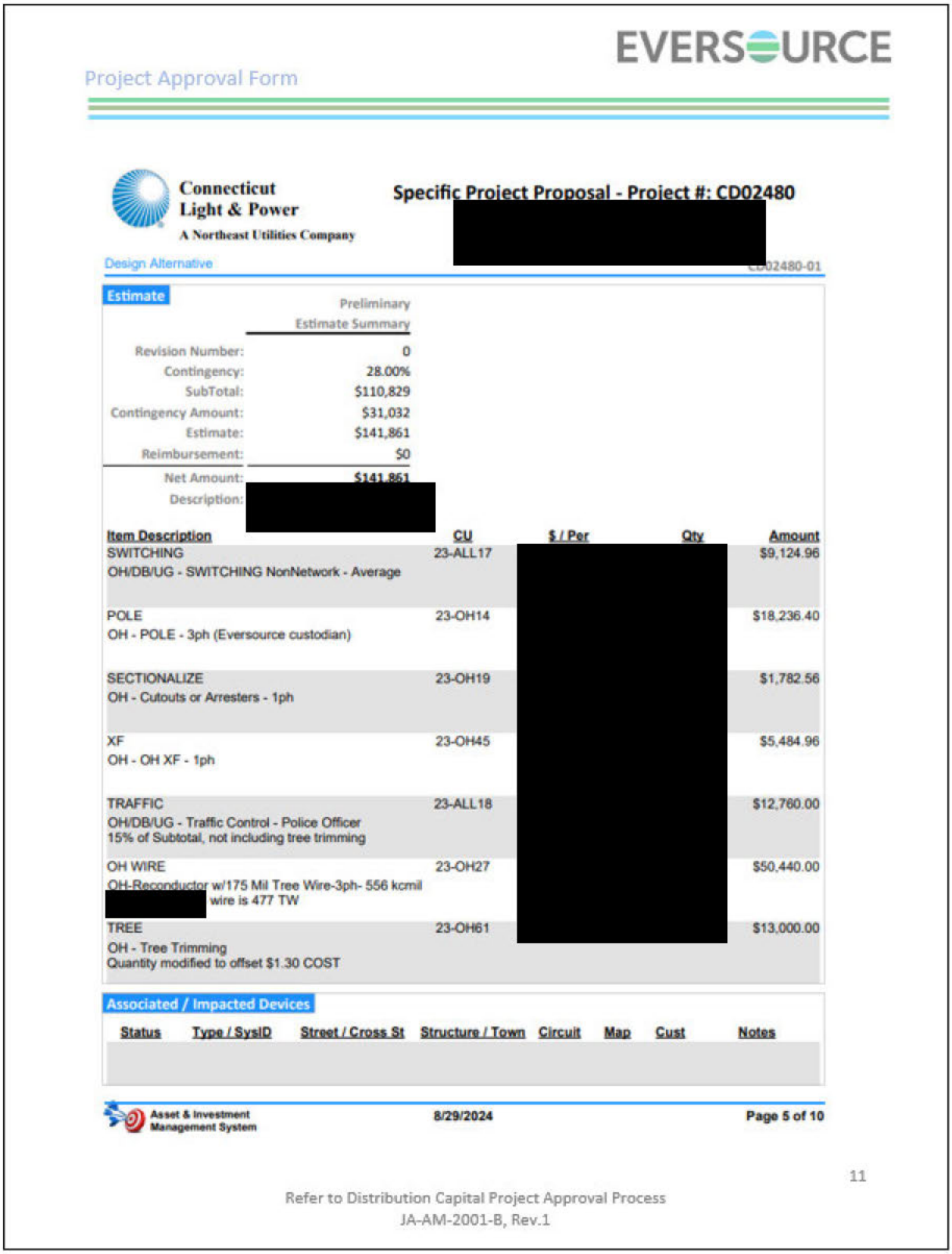
Refer to Distribution Capital Project Approval Process
JA-AM-2001-B, Rev.1



EVERSOURCE

Project Approval Form

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD02480

[redacted]

Design Alternative

CD02480-01

Estimate

Preliminary Estimate Summary

Revision Number:	0
Contingency:	28.00%
SubTotal:	$110,829
Contingency Amount:	$31,032
Estimate:	$141,861
Reimbursement:	$0
Net Amount:	$141,861
Description:	[redacted]

Item Description	CU	$ / Per	Qty	Amount
SWITCHING OH/DB/UG - SWITCHING NonNetwork - Average	23-ALL17	[redacted]		$9,124.96
POLE OH - POLE - 3ph (Eversource custodian)	23-OH14			$18,236.40
SECTIONALIZE OH - Cutouts or Arresters - 1ph	23-OH19			$1,782.56
XF OH - OH XF - 1ph	23-OH45			$5,484.96
TRAFFIC OH/DB/UG - Traffic Control - Police Officer 15% of Subtotal, not including tree trimming	23-ALL18			$12,760.00
OH WIRE OH-Reconductor w/175 Mil Tree Wire-3ph- 556 kcmil [redacted] wire is 477 TW	23-OH27			$50,440.00
TREE OH - Tree Trimming Quantity modified to offset $1.30 COST	23-OH61			$13,000.00

Associated / Impacted Devices

Status	Type / SysID	Street / Cross St	Structure / Town	Circuit	Map	Cust	Notes

Asset & Investment Management System 8/29/2024 Page 5 of 10

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Refer to Distribution Capital Project Approval Process
JA-AM-2001-B, Rev.1

EVERSOURCE
Project Approval Form

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD02480 [redacted]

Design Alternative CD02480-02

Estimate

Preliminary Estimate Summary

Revision Number:	0
Contingency:	28.00%
SubTotal:	$2,705
Contingency Amount:	$757
Estimate:	$3,462
Reimbursement:	$0
Net Amount:	**$3,462**

Description: Remove OOS Wire on New Rd.

Item Description	CU	$ / Per	Qty	Amount
TRAFFIC OH/DB/UG - Traffic Control - Police Officer 15% of subtotal, not including Tree Trimming	23-ALL18	[redacted]		$1.00
OH WIRE OH - Remove circuit wire (3 phase) New Rd - Remove OOS primary conductor	23-OH37A			$2,704.00

Associated / Impacted Devices

Status	Type / SysID	Street / Cross St	Structure / Town	Circuit	Map	Cust	Notes

Asset & Investment Management System 8/29/2024 Page 7 of 10

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EVERSOURCE
Project Approval Form

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD02480 [redacted]

Design Alternative CD02480-03

Estimate

Preliminary Estimate Summary

Revision Number:	0
Contingency:	28.00%
SubTotal:	$344,656
Contingency Amount:	$96,504
Estimate:	$441,159
Reimbursement:	$0
Net Amount:	**$441,159**
Description:	[redacted]

Item Description	CU	$ / Per	Qty	Amount
SWITCHING OH/DB/UG - SWITCHING NonNetwork - Average	23-ALL17	[redacted]		$9,124.96
POLE OH - POLE - 3ph (Eversource custodian)	23-OH14			$48,630.40
SECTIONALIZE OH - Cutouts or Arresters - 1ph	23-OH19			$7,130.24
TRAFFIC OH/DB/UG - Traffic Control - Police Officer 15% of subtotal, not including Tree Trimming	23-ALL18			$40,129.00
TREE OH - Tree Trimming Quantity modified to offset $1.30 COST	23-OH61			$36,999.30
XF OH - OH XF - 1ph [redacted] 4 Xmfr	23-OH45			$10,969.92
OH WIRE OH-Reconductor w/175 Mil Tree Wire-3ph- 556 kcmil [redacted] - wire is 477 TW	23-OH27			$191,672.00

Asset & Investment Management System 8/29/2024 Page 9 of 10

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Refer to Distribution Capital Project Approval Process
JA-AM-2001-B, Rev.1

Project Approval Form

Attachment B: Geographic Map



Project Approval Form

Attachment C: 30R15 One-Line - Existing



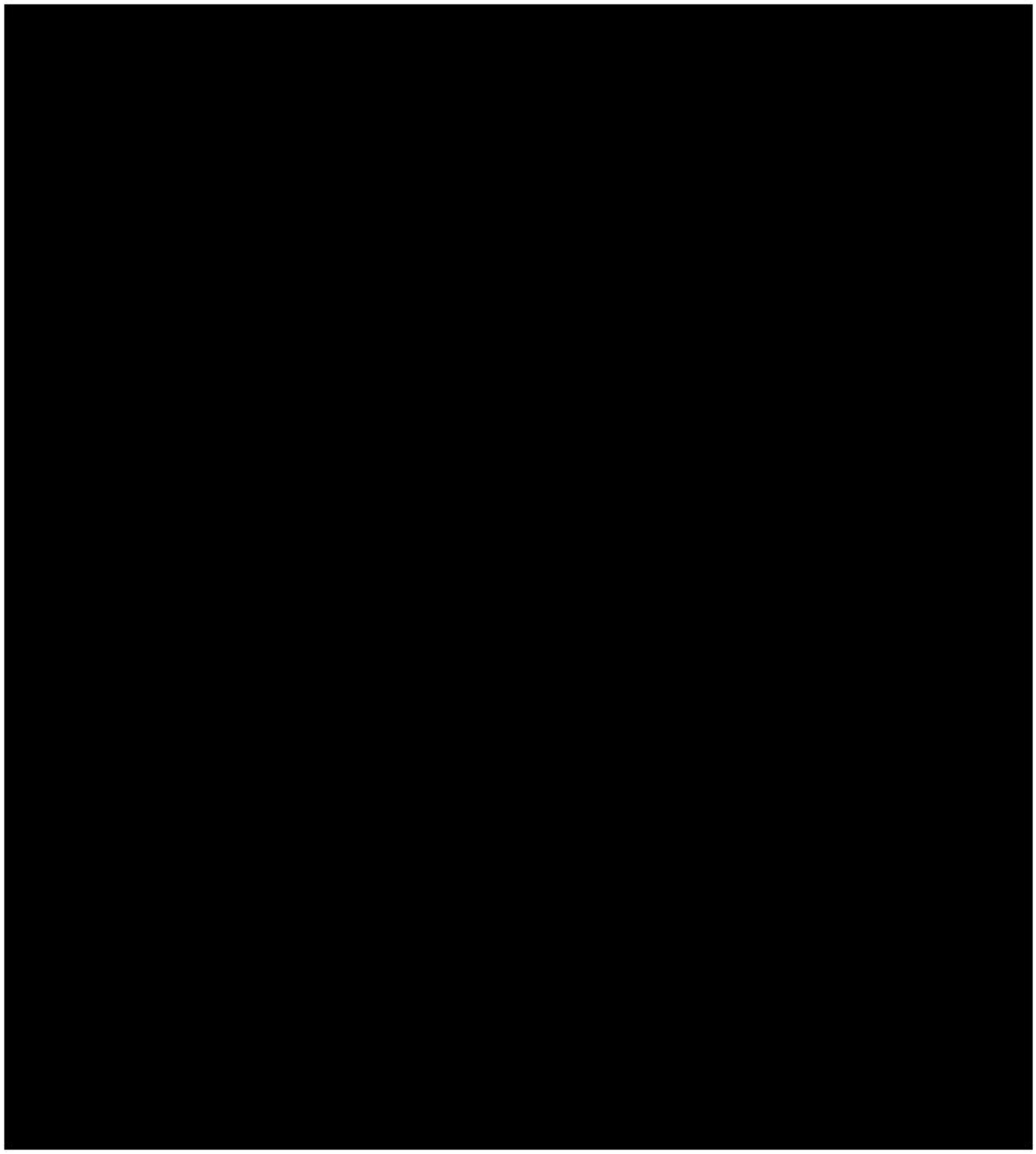
Project Approval Form

30R15 One-Line - Proposed



Project Approval Form

Attachment D: Load Sheets



Project Approval Form

Attachment E: Outage Map

